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CLAIMS

1. A method for baling fibrous plants, especially flax, hemp or sisal, comprising the steps consisting, in succession, in cutting off the bottom of the plants, in placing the plants without bottom in windrows on the soil, in letting them be at least partly retted, in gathering them and in rolling them up, characterized in that it consists in cutting off the top of the plants before they are windrowed.

2. The method according to claim 1, characterized in that it comprises, after the gathering step and before the rolling-up step, the steps consisting in crushing the stalks of the plants without top and bottom so as to break up the wood filaments that they contain, in decorticating the crushed stalks, so as to strip them of the wood filament fragments and shives, and in laying the thus scutched fibers out flat.

3. The method according to claim 2, characterized in that the crushing step consists in passing the stalks without top and bottom between at least one set of two parallel rollers capable of rotating in opposite directions and including splines at least partly imbricated in one another, the stalks being parallel to the rollers as they pass between them.

4. The method according to claim 2 or 3, characterized in that the decorticating step is carried out in two successive phases, during each of which the stalks without top and bottom are decorticated over one half of their periphery.

5. The method according to any one of claims 2 to 4, characterized in that it includes a step consisting in recovering the wood filament fragments and the shives.

6. A machine for baling fibrous plants, especially flax, hemp or sisal, the plants being arranged in windrows on the soil after their bottom has been cut off, and the plants are at least partly retted,  
5 characterized in that it comprises means (3) for gathering the plants, the tops of which have been cut off before the windrowing, means (4) for crushing the stalks of plants without top and bottom, so as to break up the wood filaments that they contain, means (10) for  
10 decorticating the crushed stalks, so as to strip them of the wood filament fragments and shives, means (31) for laying the thus scutched fibers out flat, and means (32) for rolling up these fibers in the form of bales.

15 7. The machine according to claim 6, characterized in that the crushing means (4) comprise at least one group of two parallel rollers (5; 6) arranged one on top of the other, which are capable of rotating in opposite directions and include splines (7; 8) at least partly  
20 imbricated in one another, the stalks without top and bottom being crushed by passing between the rollers, parallel to the latter.

8. The machine according to claim 6 or 7,  
25 characterized in that the decorticating means (10) comprise two decorticator units for decorticating one half of the periphery of the stalks without top and bottom.

30 9. The machine according to claim 8, characterized in that each decorticator unit (10) comprises two drums (25) extending parallel to the path of the stalks (26) to be decorticated and each defining a corridor (30) of constant width with a separator element (28) located  
35 between them, the drums each having longitudinal slats (27) on their lateral surface and being capable of rotating in opposite directions in order for their slats to move along substantially one half of the length of the stalks, while applying the latter against

the two longitudinal flanks (29) of the separator element.

10. The machine according to claim 9, characterized in  
5 that the longitudinal slats (27) of the drums (25) are placed radially and at equal distances from one another, and have a height practically equal to the width of the corridors (30).

10 11. The machine according to claim 9 or 10, characterized in that the slats (27) are made of a flexible material, especially leather or wood.

12. The machine according to any one of claims 6 to  
15 11, characterized in that it further includes means for recovering the wood filament fragments and the shives.

13. The machine according to any one of claims 6 to  
20 12, characterized in that it includes a driver cabin (33) located at the front and in the central part.

14. The machine according to claim 13, characterized  
in that it includes two baling units placed on either  
side of its longitudinal axis, each unit comprising  
25 gathering means (3), crushing means (4), decorticating means (10), laying-out-flat means (31) and rolling-up means (32).

CLAIMS

1. A method for baling fibrous plants, especially flax, hemp or sisal, comprising the steps consisting, in succession, in cutting off the bottom of the plants, in placing the plants without bottom in windrows on the soil, in letting them be at least partly retted, in gathering them and in rolling them up, characterized in that it consists in cutting off the top of the plants before they are windrowed.

2. The method according to claim 1, characterized in that it comprises, after the gathering step and before the rolling-up step, the steps consisting in crushing the stalks of the plants without top and bottom so as to break up the wood filaments that they contain, in decorticating the crushed stalks so as to strip them of the wood filament fragments and shives, and in laying the thus scutched fibers out flat.

3. The method according to claim 2, characterized in that the crushing step consists in passing the stalks of the plants without top and bottom between at least one set of two parallel rollers capable of rotating in opposite directions and including splines at least partly imbricated in one another, the stalks being parallel to the rollers as they pass between them.

4. The method according to claim 2 or 3, characterized in that the decorticating step is carried out in two successive phases, during each of which the stalks of the plants without top and bottom are decorticated over one half of their periphery.

5. The method according to any one of claims 2 to 4, characterized in that it includes a step consisting in recovering the wood filament fragments and the shives.

6. A machine for baling fibrous plants, especially flax, hemp or sisal, which are placed in windrows on the soil and at least partly retted, comprising means (3) for gathering the plants, means (4) for crushing  
5 the stalks without bottom so as to break up the wood filaments that they contain, means (10) for decorticating the crushed stalks so as to strip them of the wood filament fragments and shives, means (31) for laying the thus scutched fibers out flat, and means  
10 (32) for rolling up the latter in the form of bales, characterized in that the crushing means (4) comprise at least one group of two parallel rollers (5; 6) placed one above the other and capable of rotating in opposite directions, the rollers having splines (7; 8)  
15 at least partly imbricated in one another and being placed so that the stalks to be crushed pass between them, being parallel thereto.

7. The machine according to claim 6, characterized in  
20 that the decorticating means (10) comprise two decorticator units for decorticating over one half of the periphery the stalks without top and bottom.

8. The machine according to claim 7, characterized in  
25 that each decorticator unit (10) comprises two drums (25) extending parallel to the path of the stalks (26) to be decorticated and each defining a corridor (30) of constant width with a separator element (28) located between them, the drums each having longitudinal slats  
30 (27) on their lateral surface and being capable of rotating in opposite directions in order for their slats to move along substantially one half of the length of the stalks, while applying the latter against the two longitudinal flanks (29) of the separator  
35 element.

9. The machine according to claim 8, characterized in that the longitudinal slats (27) of the drums (25) are placed radially and at equal distances from one another, and have a height practically equal to the  
5 width of the corridors (30).

10. The machine according to claim 8 or 9, characterized in that the slats (27) are made of a flexible material, especially leather or wood.

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11. The machine according to any one of claims 6 to 10, characterized in that it further includes means for recovering the wood filament fragments and the shives.

15 12. The machine according to any one of claims 6 to 11, characterized in that it includes a driver cabin (33) located at the front and in the central part.

20 13. The machine according to claim 12, characterized in that it includes two baling units placed on either side of its longitudinal axis, each unit comprising gathering means (3), crushing means (4), decorticating means (10), laying-out-flat means (31) and rolling-up means (32).